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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,805	10/29/2001	John P. Spoonhower	83373F-P	2696

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EXAMINER

ANGEBRANDT, MARTIN J

ART UNIT	PAPER NUMBER
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1756

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/25/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/045,805

Applicant(s)

SPOONHOWER ET AL.

Examiner

Martin J. Angebrannt

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 5-12 and 22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 5-12 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The response of the applicant has been read and given careful consideration. Responses to the arguments of the applicant are presented after the first rejection to which they are directed.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 5-12 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The language “ .. having discrete analog images in which each discrete optical analog image forming a digital bit thereon, each discrete optical analog image forming the digital bit by exposure to light” in claim 5 and “wherein each of the discrete optical analog images may be written as a digital bit wthat can also be read digitally” (claim22) are confusing and misleading.

Initially both the analog image file and the corresponding digital file are stored on a computer in a digital format. When written, the analog image file is output to a CRT (television screen), OLED or other display device which regenerates the two dimensional image in a pixelized format from the digital data which had been stored on the computer. The image displayed is then through the optical train shown in figure 3 to expose the optical recording medium with the pattern. The corresponding digital file is written directly using a laser to form pit in the medium. (see prepub at [0038]) .

The language of the applicant implies that the image can be read digitally and that it is formed digitally using the laser. This is not congruent with the teachings of the specification. Even the abstract of the present application makes it clear the digital format data is readout digitally. The prepub at [0033] describes the areas 10 as near field optical images, while data

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stream 20 is the same image as recorded in areas 10 and shown in figure 1b, recorded digitally, so it is clear from the specification that the digital files and the analog image are not recorded as the same image, but are present in different areas. A bit can be read out digitally, but without being in a machine readable format, the individual bit is meaningless and has no content. If it were as the applicant's representative interpreted the language why would there be two separate areas 20 and 10? The applicant is also directed to figure 7, where the digital record is recorded on side A and the analog image is recorded on side B (prepub at [0045]).

The applicant could obviate this rejection by indicating that - - each discrete optical analog image has a corresponding digital data stream of the image recorded in the medium - -. See prepub at [0048]. The claims still indicate that the analog image is formed of digital bits. Once the image is projected is displayed so that one can appreciate it visually, it is then no longer digital data.

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 5-12 and 22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

As discussed above, the specification is enabled for the recording of a single image in each of two different formats (analog and digital) in different locations on the optical recording

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medium, but is not enabled for the forming analog images which are in a digitally readable format.

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 5,6,8,10 and 22 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Carlson et al. '352.

Carlson '352 teaches laser deformable compositions including a triphenyl methane dye, nitrocellulose coated on a glass substrate, where HeNe laser beams are used in recording using a HeNe laser with a laser beams of 2 microns in diameter or less. (5/53-6/21,2/3-11). The formation of pictorial, printed or other data may be recording (5/5-22). The use of photochromic or silver halide materials is also disclosed. (7/22-35). The recording in metal films is also disclosed. (8/30-35).

The analog images are written using the laser to form a binary bit for each pixel. The binary bit inherently is a digital bit, but the bits together do not form a digital file, such as the 16 or 32 bit data streams described in the specification at [0033]. (ie. they are not digitally encoded for replay using a CD or DVD player.)

In the applicants specification, there are two files, one analog and another digital. These two different type of information are written in different areas (ie the analog image is not written as a matrix of digital bits). The applicant could obviate the rejections over Carlson '352, Congleton et al. '999, Watanabe et al. JP 11-110816 or Bouldin '278 as well ass the rejection over Watanabe et al. JP 11-110816 and Carlson '352, in view of either of Mizutani JP 01-144247 or Ogura JP 2001-076382 by indicating that - - each discrete optical analog image has a corresponding digital data stream of the image recorded in the medium - -. See prepub at [0048]. Please read the prepub and/or consult with one of the applicants to verify the examiners characterization of the invention. Claim 22 is an intended use limitation. As discussed previously, the use of a near field exposure does not necessarily (as image quality recorded is dependent upon the quality of the original image) produce any artifacts attributable to the recording process. Further, 500 microns spot sizes are nowhere near the diffraction limit and small (and higher resolution) images can easily be recorded using conventional imaging (Carlson uses 2 microns laser spots).

9. Claims 5-11 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Carlson '352.

It would have been obvious to modify the medium resulting cited where the text/letters are replaced with pictoral images based upon the disclosure at col 5/lines 5-22. Further it would

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have been obvious to use another medium, such as the photographic and photochromic materials disclosed at col. 7/lines 22-35 with a reasonable expectation of forming a useful imaged medium.

The rejection stands for the reasons above.

10. Claims 5,6,8,10 and 22 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Congleton et al. '999.

Congleton et al. '999 describes using a laser focused to less than 2 microns to effect changes in the recording medium. (6/35-51). The dye may be a triphenylmethane in a thermoplastic binder, where the dye discolors (6/52-7/5). The formation of characters of the like is disclosed (figure 2, 2/36-42 and 7/32-39). The laser used is a HeNe laser (3/45-55). The use of two dimensional scanning is disclosed. (4/43-5/18). There is reference to Carlson et al. '352 at (1/38)

The analog images are written using the laser to form a binary bit for each pixel.

The rejection stands for the reasons above.

11. Claims 5,10-12 and 22 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Watanabe et al. JP 11-110816.

Watanabe et al. JP 11-110816 teaches the formation of an image, where after initialization, a the recording layer is written using a 520 mW laser light to form an image of the desired alphabetic character, picture, notation, mark, pattern, graphic form, etc. [0021]. The exposure of the image information which can be distinguished visually can be carried out using a mask, masked laser exposure or direct modulation of the laser using the digital code. [0014, 0024-0025].

The analog images are written using the laser to form a binary bit for each pixel.

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The rejection stands for the reasons above.

12. Claims 5,6,9-11 and 22 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Bouldin '278

The direct writing of alpha numeric characters using a laser is disclosed in the silver halide medium where an acrylic overcoat is present. The beams size was 4 microns. (7/28-8/11).

The rejection stands for the reasons above.

13. Claims 5-12 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. JP 11-110816 and Carlson '352, in view of either of Mizutani JP 01-144247 or Ogura JP 2001-076382.

Mizutani JP 01-144247 teaches with respect to figure 1g, a disk substrate coated with a photographic emulsion. This is then contact exposed in figure 1h (contact exposure inherently being a near field process due to the proximity of the masking element, X).

Ogura JP 2001-076382 teaches a bilayered optical recording medium which has two different photosensitive layers formed on the same side of a disc substrate, a disk substrate, an Al reflective layer (25), a tracking layer (24) formed of spiropyran (a photochromic material), a spacer (23), a diarylethene photochromic recording layer (22) and a protective layer (21) is 10 nm thick. ([0029-0032] and figures). The diaryl ethenes are inherently fluorescent.

It would have been obvious to one skilled in the art to modify the medium of Watanabe et al. JP 11-110816 by using optical recording media with different recording layers, such as the photographic emulsion of Mizutani JP 01-144247 or the photochromic recording layer of Ogura JP 2001-076382 with a reasonable expectation of forming a useful labeled optical recording

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medium based upon the old and well known teachings of the use of direct laser writing of images, text or lettering into photochromic or photographic layers by Carlson '352.

The rejection stands for the reasons above.

14. Claims 5-12 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Watanabe et al. JP 11-110816 and Carlson '352, in view of either of Mizutani JP 01-144247 or Ogura JP 2001-076382, further in view of Kubo '378.

Kubo '378 teaches the images formed on the surface of the CD as corresponding directly to digital data stored on the media to form a pictorial index.

In addition to the basis set forth above, it would have been obvious to extend the label information in the media resulting from the combination of Watanabe et al. JP 11-110816 and Carlson '352 with Mizutani JP 01-144247 or Ogura JP 2001-076382 to specifically show the exact content of data files as disclosed by Kubo '378 with a reasonable expectation of success and gaining the advantage of allowing the exact information in a file to be determined by the user.

The rejection stands for the reasons above as no further arguments or analysis was provided.

15. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period


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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Martin J. Angebrannndt whose telephone number is 571-272-1378. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Martin J Angebrannndt
Primary Examiner
Art Unit 1756

01/19/2007